providing a plurality of electrophoretic probes specific for the one or more target compounds, each electrophoretic probe having a target-binding moiety and one or more eTag reporters attached by cleavable linkages that are cleaved by oxidation, the one or more eTag reporters of each electrophoretic probe being distinguished from those of other electrophoretic probes by electrophoretic mobility;

combining with the sample the plurality of electrophoretic probes such that in the presence of a target compound a complex is formed between each target compound and one or more electrophoretic probes specific therefor;

cleaving the cleavable linkages of each electrophoretic probe forming such complex so that eTag reporters are released; and

separating and identifying the released eTag reporters based on electrophoretic mobility to determine the presence or absence of the one or more target compounds.

6. (Amended) The method of claim 5 further including a step prior to said step of cleaving, the step comprising separating said complexes from unbound said electrophoretic probes.

10. (Amended) The method according to claim 5, 6, or 7 wherein each of said electrophoretic probes is selected from a group defined by the formula:

$$[(M, D)\text{-}L]_k\text{-}T$$

wherein:

T is a target-binding moiety specific for one of said one or more target compounds;

k is an integer in the range of from 1 to 10;

L is said cleavable linkage that is cleaved by oxidation;

D is a detection group; and

M is a mobility modifier consisting of from 1 to 500 atoms selected from the group consisting of carbon, hydrogen, oxygen, nitrogen, sulfur, phosphorus, and boron; and wherein upon cleavage said eTag reporter comprising a detection group, D, and a mobility modifier, M, has a distinct mass/charge ratio so that said eTag reporters from different electrophoretic probes form distinct peaks upon electrophoretic separation.

11. (Amended) The method of claim 10 wherein said mass/charge ratio is in the range of -0.001 and 0.5, and wherein said step of providing includes providing a plurality of from 5 to 100 said electrophoretic probes.

13. (Amended) The method of claim 12 wherein said plurality of said electrophoretic probes is in the range of from 5 to 50.

14. (Amended) The method of claim 5 wherein said step of cleaving includes providing a second reagent specific for each of said one or more target compounds, each second reagent being capable of generating an active species for oxidizing said cleavable linkage.

16. (Amended) The method according to claim 14 or 15 wherein said step of providing includes providing a plurality of from 5 to 100 said electrophoretic probes.

19. (Amended) A method for determining the presence or absence of one or more target compounds in a sample, the method comprising the steps of:

providing one or more electrophoretic probes specific for each of the one or more target compounds, each electrophoretic probe having one or more eTag reporters attached thereto by a cleavable linkage, the one or more eTag reporters of each electrophoretic probe being distinguished from those of other binding compounds by electrophoretic mobility;

providing a second reagent specific for each of the one or more target compounds, each second reagent being capable of generating an active species;

combining with the sample one or more electrophoretic probes and a second reagent for each of the one or more target compounds such that in the presence of a target compounds a complex is formed between the target compound, the one or more electrophoretic probes specific therefor, and the second reagent specific therefor, and such that the second reagent causes the generation of an active species and the cleavage of one or more cleavable linkages to release one or more eTag reporters; and

electrophoretically separating and identifying the one or more released eTag reporters to determine the presence or absence of the one or more target compounds.

20. (Amended) The method of claim 19 wherein said cleavable linkage is cleaved by oxidation.